Gezici Akciğer İnfiltrasyonları ile Seyreden bir Organize Pnömoni Olgusu

A Case of Organizing Pneumonia with Migratory Pulmonary Infiltrates

Organize Pnömoni / Organizing Pneumonia

Nurhan Köksal[1], Hasan Kahraman[1], Nurhan Atilla[1], Müge Cinkara[1], Hasan Türüt[2]
[1]Department of Pulmonary Diseases, [2]Department of Chest Surgery,
Kahramanmaraş Sütçü Imam University, Faculty of Medicine, Kahramanmaraş, Turkey

Özet

Organize pnömoni (OP) birçok parankimal akciğer hastalıklarını taklit edebilir. 39 yaşında terzi olan erkek hasta, ateş, öksürük ve nefes darlığı şikayeti ile hastanemize başvurdu. Fizik muayenesinde her iki akciğer alt zonda ral saptandı. Çekilen akciğer grafisinde sağ alt zonda alveoler opasite olması nedeniyle, bakteriyel pnömoni ön tanısı ile hastaneye yatırıldı ve ampirik olarak seftriakson 2gr/gün ve dirithromisin 500 mg/gün başlandı. Klinik ve radyolojik düzelme görünmedi. PPD ve balgamda aside dirençli basil negatif bulundu. İki hafta sonra, akciğer grafisinde bu opasitelerin sağ orta zona doğru yer değiştirdiği gözlendi. Açık akciğer biyopsisi yapıldı. Patolojik bulgular OP ile uyumlu idi. Alveoler opasiteler kortikosteroid tedavisi başlandıktan iki ay sonra ki kontrol YRBT de kaybolduğu gözlendi. Gezici akciğer infiltrasyonları varlığında ve tedavi ile gerilemeyen pnömonik konsolidasyon varlığında OP de ayırıcı tanıda düşünülmelidir.

Anahtar Kelimeler

Organize Pnömoni, Gezici Akciğer İnfiltrasyonu, Kortikosteroid

Abstract

Organizing pneumonia (OP) can mimic several parenchymal lung diseases. A 39 year old man tailor, complaining of fever, cough and dyspnea was admitted to our hospital. Examination of the chest revealed rales at the bilateral lower-middle zone. The posteroanterior chest radiograph showed alveolar opacity at the right lower zone. The patient was hospitalized with the probable diagnosis of bacterial pneumonia, and started cephtriaxon 2gr/day and dirithromycin 500 mg/day empirically. Clinical and radiological improvement didn't appear. PPD and acid fast bacilli in sputum were negative. Two weeks later, the chest radiograph showed that the opacities were migrated to the right middle zone. Open lung biopsy was done. As pathologic findings were consistent with OP, corticosteroid treatment was given. The alveolar opacities disappeared at the control HRCT two months after the start of steroid therapy. Early diagnosis is life-saver and OP must be included in the differential diagnosis when pulmonary infiltrates don't regress with treatment.

Keywords

Organizing Pneumonia, Migratory Pulmonary Infiltrates, Corticosteroid

DOI: 10.4328/JCAM.354 Received: 23.08.2010 Accepted: 04.09.2010 Printed: 01.09.2011 J Clin Anal Med 2011;2(3):127-9
Corresponding Author: Nurhan Köksal, Kahramanmaras Sutcu Imam University, Faculty of Medicine, 46050, Kahramanmaraş, Turkey.
Phone:+ 90 344 221 1431 Fax:+90 344 221 2371 E-mail: nurhank@ksu.edu.tr, knurhan@gmail.com

Introduction

Organizing pneumonia (OP) is a rare but well-defined disorder first described by all characterized by the patchy involvement of the air spaces by small polypoid tufts of organizing connective tissue distributed within terminal bronchioles, alveolar ducts, and alveoli which is diagnosed by the combination of clinical and histopathological findings (1). Most frequent symptoms are dry cough and dyspnea. The term OP replaces the previously used term bronchiolitis obliterans organizing pneumonia. The reasons of this change were from the histological point of view, although the bronchiolitis obliterans pattern (which suggests obstructive histological changes of the small airways) may coexist with OP, this is not always the case, and, the spirometric pattern seen in patients with organizing pneumonia is typically restrictive, contrary to an obstructive pattern that is common in bronchiolitis (2). Organizing pneumonia can be named as a secondary (secondary organizing pneumonia, SOP), when associated with diseases known to induce this pathologic pattern. It may appear spontaneously without a known cause, which is known as cryptogenic organizing pneumonia (COP) and classified as an idiopathic interstitial lung disease (3). In a retrospective study the incidence of COP was 1.10/ 100,000, the incidence of SOP was 0.86/100,000, and overall incidence was 1.96/ 100,000. This study also demonstrated a significant increase in the incidence of OP over the last 20 years. COP is not associated with race or gender (4). Although some cases have been reported in childhood, the mean age of onset is in the fifth to sixth decade of life (5). Definite diagnosis is obtained by open lung biopsy which confirms the histological findings of the disease.

Case Report

A 39-year old man tailor, presented with three weeks of mild dyspnea, cough, sputum, fever, night sweating and weight loss. He had treated first as a common cold then pneumonia with second-generation cephalosporin, by consequence of worsening of the symptoms he was sent to our hospital. On physical examination, bilateral rales obtained at lower-middle zone. The posteroanterior chest radiograph showed alveolar opacity at the right lower zone (figure 1). The HRCT showed consolidation areas at the left upper lobe apical segment, left lower lobe basal segment, and right lower lobe basal segment which were containing air bronchograms (figure 2). Laboratory examinations, WBC: 6.000, Hb: 14.4gr/dl, Htc: 42.4, erythrocyte sedimentation rate(ESR) was 80 mm/h, CRP: 70 mg/ L, acid fast bacilli in sputum was negative and PPD: 10 mm (BCG vaccinated). The other routine tests were normal. The patient was hospitalized with the suspected diagnosis of bacterial pneumonia, and cephtriaxon 2 gr/day and dirithromycin 500 mg/day were started empirically. After two weeks treatment, the chest radiograph showed that the opacities migrated to the right middle lobe (figure 3). Respiratory function test was compatible with mild restrictive pattern. FOB was performed and transbronchial biopsy was optained but pathologic result was non-diagnostic. The patient was consultated to the chest surgery and wedge resection done. The pathology report revealed acute fibrosis and organizing pneumonia and OP diagnosis was established. Prednisone therapy 1mg/kg/day was started, and gradually tapered and ended at twelve months. He improved rapidly and the alveolar opacities disappeared at the control HRCT two months after the start of corticosteroid therapy (figure 4).

Conclusion

OP is characterized by the accumulation of organized exudates within the alveoli, protruding into the small bronchiole and alveolar ducts in the form of polyps (6). The laboratory findings are nonspecific, showing leucocytosis and neutrophilia in half of the patients, an increased C-reactive protein (%70 to % 80) and an increased sedimentation rate (%84)(7). In our patient leucocyte counts were normal and ESR was high. The most common radiographic abnormalities in patients with OP are patchy migratory airspace opacities that are often multiple and bilateral. Alveolar infiltrates may begin as focal lesions but usually become bilateral over time with predilection for periphery and lower lobes. Interstitial infiltrates, honeycombing, cavities, and pleural effusions have also been described (8). In our case we determined bilateral especially lower lobe migrating alveolar infiltration with 2 weeks interval.

The diagnosis of OP depends on finding the characteristic pathological features of the disease in the proper clinical setting, and the absence of features suggestive of another process (9). The clinical presentation usually mimics pneumonia resulting in prolonged delay in diagnosis and treatment. Although SOP can occur with any connective tissue disease, it is more commonly associated with dermatomyositis polymyositis and rheumatoid arthritis. Numerous infectious pathogens are well-known causes of SOP, which usually represents an inflammatory sequela after the clearance of the infectious agent with appropriate chemotherapy. Interestingly, SOP can be associated with chronic aspiration, even in patients previously unsuspected to have aspirated. Drug reactions are an important cause of SOP. Drug abuse like cocaine can also cause SOP. Organ transplantation, especially lung and bone marrow, has been associated with the appearance of SOP. Hematological malignancies such as myelodysplastic syndrome, Hodgkin disease, and chronic myelomonocytic leukemia are associated with SOP(2). OP has been confused with usual interstitial pneumonitis or idiopathic pulmonary fibrosis (10).There wasn't any clinical and laboratory symptoms and signs related connective tissue disease and any drug history and other disease that could cause such infil-

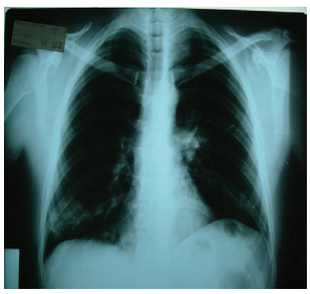

Figure 1. Alveolar opacity at the right lower zone

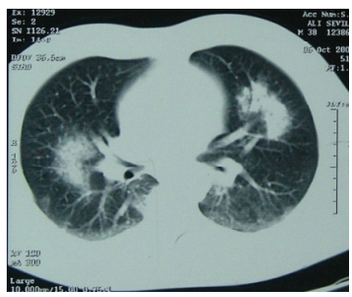

Figure 2: Consolidation areas are at the left upper lobe apical segment, left lower lobe basal segment, and right lower lobe basal segment which were containing air bronchograms

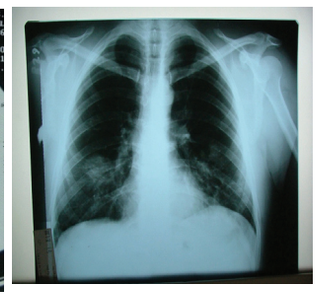

Figure 3: After two weeks treatment, opacities migrated to the right middle lobe

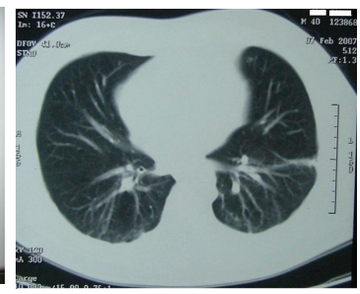

Figure 4: Two months after the start of steroid therapy alveolar opacities disappeared

trates.

It is difficult to diagnose OP with an atypical brief history and unclear radiologic images. Because the character of disease is patchy and specimen of transbronchial biopsy doesn't contain enough tissue material to diagnose, transbronchial biopsy generally is not recommended. Therefore open lung biopsy is recommended. In our case first we took specimens via transbroncial biopsy but result was negative then we diagnosed the disease by performing open lung biopsy.

Spontaneous remission of organizing pneumonia is rare. The use of corticosteroid does not always result in complete resolution and relapses are common (2) Most of OP patient respond to corticosteroid, clinical respond is seen within several days and the response may be dramatic. After 2 months the patient improved and lesions disappeared with corticosteroid treatment. We stopped the treatment one year then we followed the patient 2 years, no recurrens was determined.

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